

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (amended) Measuring probe for measuring high frequencies, comprising a contact end for contacting planar structures and a co-axial cable end for connection to a co-axial cable; a co-planar conductor structure having at least two conductors arranged between the contact end and the co-axial cable end; a solid dielectric ~~for~~ mounting the co-planar conductor structure, the dielectric being arranged on the co-planar conductor structure; the dielectric being arranged on at least one side of the co-planar conductor structure in a central section of the probe so the dielectric is between [[,]] and spaced ~~, in the direction of propagation,~~ from the co-axial cable end and the contact end, each conductor in the co-planar conductor structure including a portion being formed to be individually free in space and resilient in relation to the dielectric, a respective gap being formed between each pair of conductors in the co-planar conductor structure from the co-axial cable end to the contact end in such a way that a constant characteristic impedance is obtained from the co-axial cable end to the contact end.
2. (amended) Measuring probe according to claim 1, wherein the respective gap is wider in the region [[of]] where the conductor structure is mounted on the dielectric than in the region portion of the co-planar conductor structure ~~where there is no dielectric~~ that is formed to be individually free in space and resilient in relation to the dielectric.
3. (previously amended) Measuring probe according to claim 1, wherein the dielectric includes at least one block of quartz.
4. (amended) Measuring probe according to claim 1, wherein a face of the dielectric ~~has, on a side where it is connected to that contacts~~ the co-planar conductor structure includes a metal coating having that is electrically connected to the co-planar conductor structure

and has substantially the same shape as the co-planar conductor structure.

5. (amended) Measuring probe according to claim 1, wherein the dielectric is metallised over its full area on a side thereof remote from a face of the dielectric that contacts the co-planar conductor structure.

6. (previously presented) Measuring probe according to claim 1, further including a planar circuit arranged at the co-axial cable end.

7. (previously presented) The measuring probe of claim 6 wherein the planar circuit includes at least one active circuit element.

8. (previously presented) The measuring probe of claim 1 wherein the dielectric is on both sides of the co-planar conductor structure.

9. (new) Apparatus for coupling an electromagnetic wave between first co-planar, spaced planar electrical conductors and a pair of spaced co-axial electrical conductors, comprising N second co-planar, planar conductors having first and second ends respectively adapted to be connected to the first conductors and the co-axial conductors, where N is an integer greater than one, the second N conductors being transversely spaced from each other throughout the length thereof between the first and second ends, the transverse spacing between the second N conductors being different in different portions of the length thereof between the first and second ends, and a solid dielectric electromagnetically coupled with the portions of the second conductors that have the greatest transverse spacing from each other, the solid dielectric and the transverse spacing being such that a constant characteristic impedance is obtained between the first and second ends.

10. (new) The apparatus of claim 9 wherein the solid dielectric and the portions of the second conductors having the greatest transverse spacing are located remotely from the first and second ends.

11. (new) The apparatus of claim 10 wherein the apparatus is a contact probe and the portions of the second conductors having the greatest transverse separation and the solid dielectric are fixedly connected and portions of the second conductors between the portion having the greatest separation and the first end are individually free in space and resilient in relation to the solid dielectric so that the second conductors at the first end form contact fingers that are relatively free in space to contact against ends of the first conductors.
12. (new) The apparatus of claim 9 wherein portions of the second conductors having the greatest transverse separation and the solid dielectric are fixedly connected and portions of the second conductors between the portion having the greatest separation and the second end are individually free in space and resilient in relation to the solid dielectric so that the second conductors at the second end form contact fingers that are relatively free in space to contact against ends of the first conductors.
13. (new) The apparatus of claim 9 wherein N is 3 so that a central one of the second conductors is adapted to be connected to the center conductor of the co-axial conductors, and an outer pair of the second conductors is adapted to be connected to the outer conductor of the co-axial conductors.
14. (new) The apparatus of claim 9 wherein the transverse spacing between the second conductors in the vicinity of the first end of the second conductors is tapered.
15. (new) The apparatus of claim 14 wherein the tapering is such that the spacing is less at the first end than at a location of the second conductors longitudinally spaced from the first end.
16. (new) The apparatus of claim 11 wherein the transverse spacing between the second conductors in the vicinity of the first end of the second conductors is tapered.
17. (new) The apparatus of claim 16 wherein the tapering is constant between the first end and the portions of the second conductors having the greatest separation.

18. (new) Measuring probe according to claim 4, wherein the dielectric is metallised over its full area on a side thereof remote from the face of the dielectric that contacts the co-planar conductor structure.

19. (new) The measuring probe of claim 8 wherein each side of the dielectric has a face that contacts the co-planar conductor structure and includes a metal coating that is electrically connected to the co-planar conductor structure and has substantially the same shape as the co-planar conductor structure.

20. (new) Measuring probe according to claim 19, wherein the dielectric is metallised over its full area on sides thereof remote from the faces of the dielectric that contact the co-planar conductor structure.